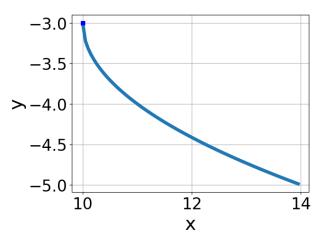
1. Choose the equation of the function graphed below.



A.
$$f(x) = -\sqrt{x+10} - 3$$

B.
$$f(x) = \sqrt{x+10} - 3$$

C.
$$f(x) = -\sqrt{x - 10} - 3$$

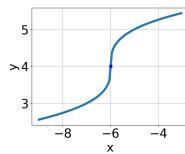
D.
$$f(x) = \sqrt{x - 10} - 3$$

- E. None of the above
- 2. Choose the graph of the equation below.

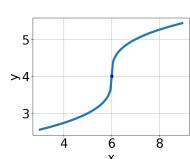
$$f(x) = \sqrt[3]{x-6} + 4$$

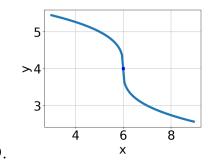
5

>4









-6

-8



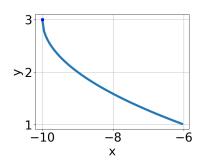
A.

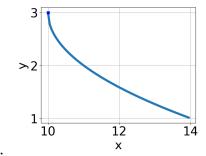
В.

E. None of the above.

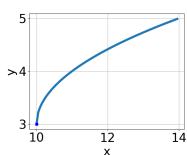
3. Choose the graph of the equation below.

$$f(x) = \sqrt{x+10} + 3$$



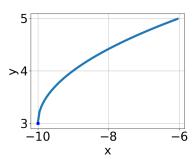


A.



C.

D.



В.

- E. None of the above.
- 4. Solve the radical equation below. Then, choose the interval(s) that the solution(s) belongs to.

$$\sqrt{48x^2 - 30} - \sqrt{-4x} = 0$$

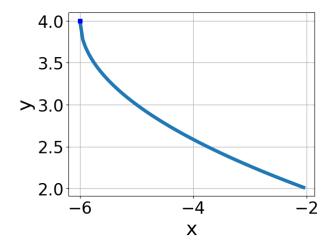
- A. $x \in [-2.83, 0.17]$
- B. $x \in [-0.25, 3.75]$
- C. All solutions lead to invalid or complex values in the equation.
- D. $x_1 \in [-0.25, 3.75]$ and $x_2 \in [0.79, 0.87]$
- E. $x_1 \in [-2.83, 0.17]$ and $x_2 \in [0.67, 0.76]$

Progress Quiz 4

5. Solve the radical equation below. Then, choose the interval(s) that the solution(s) belongs to.

$$\sqrt{9x+5} - \sqrt{5x+5} = 0$$

- A. $x \in [-2.98, -1.79]$
- B. $x_1 \in [-1.09, -0.92]$ and $x_2 \in [-0.87, -0.55]$
- C. $x_1 \in [-0.63, -0.24]$ and $x_2 \in [-0.55, 0.11]$
- D. $x \in [-0.45, 0.4]$
- E. All solutions lead to invalid or complex values in the equation.
- 6. Choose the equation of the function graphed below.



- A. $f(x) = -\sqrt{x+6} + 4$
- B. $f(x) = \sqrt{x-6} + 4$
- C. $f(x) = \sqrt{x+6} + 4$
- D. $f(x) = -\sqrt{x-6} + 4$
- E. None of the above
- 7. Solve the radical equation below. Then, choose the interval(s) that the solution(s) belongs to.

$$\sqrt{-24x^2 + 21} - \sqrt{10x} = 0$$

Progress Quiz 4 Version A

A. All solutions lead to invalid or complex values in the equation.

- B. $x \in [-1.29, -0.35]$
- C. $x_1 \in [-1.29, -0.35]$ and $x_2 \in [0.64, 0.94]$
- D. $x_1 \in [0.44, 1.41]$ and $x_2 \in [0.96, 1.3]$
- E. $x \in [0.44, 1.41]$
- 8. Solve the radical equation below. Then, choose the interval(s) that the solution(s) belongs to.

$$\sqrt{-3x+2} - \sqrt{-6x+7} = 0$$

- A. All solutions lead to invalid or complex values in the equation.
- B. $x \in [1.08, 1.84]$
- C. $x_1 \in [-0.34, 0.84]$ and $x_2 \in [1.4, 2]$
- D. $x \in [-3.15, -1.87]$
- E. $x_1 \in [-0.34, 0.84]$ and $x_2 \in [0.2, 1.6]$
- 9. What is the domain of the function below?

$$f(x) = \sqrt[3]{-4x + 9}$$

- A. The domain is $(-\infty, a]$, where $a \in [-2.6, 0.5]$
- B. The domain is $(-\infty, a]$, where $a \in [1.3, 2.8]$
- C. The domain is $[a, \infty)$, where $a \in [1.2, 2.7]$
- D. $(-\infty, \infty)$
- E. The domain is $[a, \infty)$, where $a \in [-1.4, 1.6]$
- 10. What is the domain of the function below?

$$f(x) = \sqrt[4]{7x+3}$$

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- A. $[a, \infty)$, where $a \in [-2.2, 1.3]$
- B. $(-\infty, \infty)$
- C. $(-\infty, a]$, where $a \in [-3.5, -0.5]$
- D. $[a, \infty)$, where $a \in [-5.8, -2.2]$
- E. $(-\infty, a]$, where $a \in [-1.6, 0.1]$

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